CLAIMS

1. A process for producing a racemic or optically active α -methylcysteine derivative represented by general formula (2):

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$$\begin{array}{c} SR^1 \\ H_2N \\ O \end{array} \tag{2}$$

(wherein R^1 represents a substituted or unsubstituted alkyl group having 1 to 20 carbon atoms, a substituted or unsubstituted aralkyl group having 7 to 20 carbon atoms, or a substituted or unsubstituted aryl group having 6 to 20 carbon atoms), the process comprising a step of hydrolyzing a racemic or optically active N-carbamyl- α -methylcysteine derivative represented by general formula (1):

$$H_{2}N \longrightarrow NH \longrightarrow OH$$
 (1)

- 15 (wherein R^1 is as defined above) by treating with decarbamylase.
 - 2. The process according to claim 1, wherein the N-carbamyl- α -methylcysteine derivative (1) and the resultant α -methylcysteine derivative (2) are optically active.
- 20 3. The process according to claim 1 or 2, wherein the N-carbamyl- α -methylcysteine derivative (1) and the resultant

 α -methylcysteine derivative (2) are L-isomers.

4. A process for producing an optically active $\alpha-$ methylcysteine derivative represented by general formula (2):

$$H_2N$$
 OH (2)

5 (wherein R¹ represents a substituted or unsubstituted alkyl group having 1 to 20 carbon atoms, a substituted or unsubstituted aralkyl group having 7 to 20 carbon atoms, or a substituted or unsubstituted aryl group having 6 to 20 carbon atoms) and an optically active N-carbamyl-α-methylcysteine derivative having a configuration opposite to that of the compound, the process comprising a step of stereoselectively hydrolyzing a racemic N-carbamyl-α-methylcysteine derivative represented by general formula (1):

$$H_{2}N \longrightarrow NH \longrightarrow OH$$
 (1)

- 15 (wherein R^1 is as defined above) by treating with decarbamylase.
 - 5. The process according to claim 4, wherein the resultant α -methylcysteine derivative (2) is an L-isomer.
- 6. The process according to any one of claims 1 to 5, wherein
 the decarbamylase is derived from microorganisms belonging
 to genus Agrobacterium, Rhizobium, or Pseudomonas.

- 7. The process according to any one of claims 1 to 5, wherein the decarbamylase is derived from Agrobacterium sp. KNK712 (FERM BP-1900), Rhizobium sp. KNK1415 (FERM BP-4419), or Pseudomonas sp. KNK003A (FERM BP-3181).
- 5 8. The process according to any one of claims 1 to 5, wherein the decarbamylase is derived from Escherichia coli HB101 (pNT4553) (FERM BP-4368).
 - 9. The process according to any one of claims 1 to 8, wherein the decarbamylase is used in the form of an immobilized enzyme.
- 10. The process according to any one of claims 1 to 9, wherein \mathbb{R}^1 is a substituted or unsubstituted tertiary alkyl group having 4 to 15 carbon atoms.
 - 11. The process according to any one of claims 1 to 9, wher $\operatorname{ein}\ R^1$ is a tert-butyl group.